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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,426	06/28/2004	Akihito Komatsu	594.539USWO	9300

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EXAMINER
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KOSLOW, CAROL M

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/500,426

Applicant(s)

KOMATSU ET AL.

Examiner

C. Melissa Koslow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-25, 27-34, 36 and 38-40 is/are pending in the application.
- 4a) Of the above claim(s) 14-24, 34, 36 and 38-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 8-13, 25 and 28-33 is/are rejected.
- 7) ☒ Claim(s) 7 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

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This action is in response to applicants' arguments of 19 October 2006. Applicants' arguments have overcome the art rejection and the amendments to the claims have overcome the objections to the claims 5 and 26 and the 35 USC 112 rejection of claims 10 and 30. The finality of the rejection of the last Office action is withdrawn in view of new art.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election by original presentation has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 14-24, 34, 36 and 38-40 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 6, 8-13, 25 and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/55876.

U.S. patent 6,493,211 is the national stage application for WO 00/55876 and thus the U.S. patent acts as the translation of WO 00/55876.

The references teach an electrolytic capacitor which contains an electrolyte comprising 35 to 65 wt% water, 35 to 65 wt% organic solvent, 5-20 wt% of adipic acid or its salt, such as ammonium adipate, 0.01-3 wt% of an inorganic phosphoric acid or its salt, such as an ammonium, sodium or potassium salt and 0.01-3 wt% of a chelating agent. The amount of water

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and adipic acid and its salt fall within the claimed ranges and the amount of inorganic phosphoric acid overlaps the claimed range. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); *In re Fields* 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). Column 3, lines 3-21 teaches the organic solvent can be a mixture of protonic polar solvent and a nitrile compound, a compound having an unsaturated carbon-nitrogen  $\pi$  bond containing chain which undergoes hydrogen addition reaction and which is soluble in water and protic polar solvents. Thus the references suggest a mixture of protonic polar solvent and a nitrile compound, where the amount of the solvent and the nitrile add up to 35-65 wt%, which means the amount of each can be in the range of greater than 0 up to less than 65 wt%, which overlaps the claimed ranges. The references suggest the claimed electrolyte and capacitor.

Claims 1-3, 5, 8, 9, 11, 13, 25, 28, 29, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,629,829.

This reference teaches an electrolytic capacitor comprising an electrolyte comprising 0.05-20 wt% water, 80-99.95 wt% an organic solvent, 0.01-20 wt% phosphoric acid and salts thereof and a quaternary ammonium salt of cyanic acid, which is a compound having an unsaturated carbon-nitrogen  $\pi$  bond containing chain which undergoes hydrogen addition reaction and which is soluble in water and polar solvents. The amount of quaternary ammonium salt of cyanic acid is the amount which saturates the organic solvent, which appears to overlap the claimed range. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re*

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*Malagari* 182 USPQ 549 (CCPA 1974); *In re Fields* 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). The phosphoric acid salt can be alkyl ammonium salts. The solvent can be a protic or aprotic solvent. The reference suggests the claimed electrolyte and capacitor.

Claims 7 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

There is no teaching or suggestion of an electrolyte comprising 10-80 wt% organic solvent, 20-90 wt% water, at least one type of electrolyte selected from the group consisting of carboxylic acid, inorganic acids and salts thereof and a compound having an unsaturated carbon-nitrogen or carbon-carbon  $\pi$  bond containing chain which undergoes hydrogen addition reaction selected from the group consisting of compounds having alkyne, alkene or imine chains and at least one substituent group selected from the group consisting of hydroxyl, formyl, carbonyl, acyl, carboxyl, sulfonyl, sulfinyl, sulfenyl, amido, amino, alkylamino, dialkylamino, alkoxysilyl, silanol, phenylcarboxyl, nitrile, nitro, nitroso, phenol, phosphono, esters and ethers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

The fax number for all official communications is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk  
November 3, 2006



C. Melissa Koslow  
Primary Examiner  
Tech. Center 1700